

# MISSOURI DEPARTMENT OF TRANSPORTATION



**MicroStation®**  
**CADD Standards**

## PREFACE

This manual is intended as a visual reference to the settings managers used by the Missouri Department of Transportation (MoDOT) Design Division. It was created in cooperation with the CADD Support Center, CADD Quality Circle, and the Support Center Design Division. This publication is distributed by the MoDOT Support Center Design Division. The effective date of this publication is 12/12/01.

This manual was constructed to support the MoDOT Project Development Manual, Section 4-03. The items listed are in settings manager order from Title Sheet to Cross-Section/Preliminary Plan. It is intended to help all MicroStation® CADD users identify and utilize the proper text and symbology, established by the department, while constructing plans for highway construction. Each item has a graphical representation and a description of its type, color, level, line weight, line style, and text height (if applicable). Text heights are dual dimensioned in mm and inches respectively, i.e. 2.5 (.10). These standards were developed to ensure uniformity of highway plans created by the department throughout the state of Missouri.

By providing this manual the Missouri Department of Transportation does not intend to form a contract with any person, nor shall any of the information be relied upon by any person as forming a part of any contract.

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## MicroStation CADD Standards

### All Setting Managers

Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note 2.5mm (.10")	7	2	1	2.5 (.10)
← Note 3.05mm (.12")	5	2	2	3.05 (.12)
← Note 3.8mm (.15")	4	2	4	3.8 (.15)
← Note 4.6mm (.18")	1	2	5	4.6 (.18)
← Note 5.3mm (.21")	2	2	7	5.3 (.21)
Text 2.5mm (.10")	7	2	1	2.5 (.10)
Text 3.05mm (.12")	5	2	2	3.05 (.12)
Text 3.8mm (.15")	4	2	4	3.8 (.15)
Text 4.6mm (.18")	1	2	5	4.6 (.18)
Text 5.3mm (.21")	2	2	7	5.3 (.21)
Text General Note	4	14	4	3.05 (.12)

### Title

Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Text City Name	5	28	5	4.6 (.18)
← Text Population	5	28	4	3.8 (.15)
← Text Station Limits	0	16	5	4.6 (.18)
Text Township/Range	10	28	4	3.8 (.15)

### Typical Sections

Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Pavement History	4	21	2	3.05 (.12)
← Note with Slope Arrow	5	21	2	3.05 (.12)

### Summary

Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
See "All Settings Managers" Above				

### Plan

Drainage (notes only)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note CMP,PVC,RCP,Culv't	31	43	4	3.05 (.12)
← Note Conc Basin	31	41	1	2.03 (.08)
← Note Ditch Block	68	41	2	3.05 (.12)
← Note Ditch Lining & Size	52	43	2	3.05 (.12)
← Note Ditch Type	52	41	2	3.05 (.12)
← Note Rock Type	0	12	2	3.05 (.12)
← Note Slope Line	53	42	2	3.05 (.12)
Text CMP,PVC,RCP,Culv't	31	43	4	3.05 (.12)
Text Removals (R)	0	61	2	3.05 (.12)

### Plan

Exhibits (notes only)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
<b>BLOCK Style Text Small</b>	5	2	2	3.05 (.12)
<b>BLOCK Style Text Medium</b>	4	2	4	3.8 (.15)
<b>BLOCK Style Text Large</b>	1	2	5	4.6 (.18)
<b>BLOCK Text X-Large</b>	2	2	7	5.33 (.21)
Text Small	5	2	2	3.05 (.12)
Text Medium	4	2	4	3.8 (.15)
Text Large	1	2	5	4.6 (.18)
Text Extra Large	2	2	7	5.33 (.21)

## MicroStation CADD Standards

### Plan

#### General Construction (Build)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Abandoned	0	15	2	3.05 (.12)
← Note Cons't + Dept 2.5mm (.10")	2	13	1	2.5 (.10)
← Note Cons't + Dept 3.05mm (.12")	2	13	2	3.05 (.12)
← Note Cons't + Dept 3.8mm (.15")	2	13	4	3.8 (.15)
← Note Cons't + Dept 4.6mm (.18")	2	13	5	4.6 (.18)
← Note Cons't + Dept 5.3mm (.21")	2	13	7	5.3 (.21)
← Note Grading (Grade To Drain)	52	15	2	3.05 (.12)
← Note Linear Grading Type	0	15	2	3.05 (.12)
← Note Misc Details	0	58	4	3.05 (.12)
← Note No Direct Pay	0	15	2	3.05 (.12)
← Note Obliteration	0	61	4	3.05 (.12)
← Note Saw Cut - Pav't Repair	0	15	2	3.05 (.12)
Text (L.I.P.)(UIP)(DND)	5	15	2	3.05 (.12)
Text Beg./ End Project	20	3	2	3.05 (.12)
Text Cons't Dept 2.5mm (.10")	2	13	1	2.5 (.10)
Text Cons't Dept 3.05mm (.12")	2	13	2	3.05 (.12)
Text Cons't Dept 3.8mm (.15")	2	13	4	3.8 (.15)
Text Cons't Dept 4.6 mm (.18")	2	13	5	4.6 (.18)
Text Cons't Dept 5.3mm (.21")	2	13	7	5.3 (.21)
Text General Note	4	14	4	3.05 (.12)
Text Removals (R)	0	61	2	3.05 (.12)

### Plan

#### R/W

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note City Limits	5	28	4	3.05 (.12)
← Note Esm't (Perm)	2	29	4	3.8 (.15)
← Note Esm't (Temp)	6	61	4	3.05 (.12)
← Note R/W (Exist)	6	30	4	3.8 (.15)

### Plan

#### R/W (Cont.)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note R/W (New)	2	31	5	3.8 (.15)
← Note R/W - Borrow Area	8	38	4	3.8 (.15)
← Note R/W - Excess	2	32	4	3.8 (.15)
Text BM or GRS Symbol Notation	10	27	1	2.03 (.08)
Text City Name	5	28	5	3.8 (.15)
Text County/State Line	10	28	5	3.8 (.15)
Text Esm't (Perm) Sta & Offset	2	29	4	3.05 (.12)
Text Landcall (Sec-Twn-Ran)	10	28	5	3.8 (.15)
Text Landpin or Corner	5	28	1	2.03 (.08)
Text R/W (Exist) Sta & Offset	6	32	5	3.8 (.15)
Text R/W (New) Sta & Offset	2	32	5	3.8 (.15)
Text Sec ¼, and ¼ ¼ (along)	16	28	4	3.05 (.12)
Text Section Line (above elem)	10	28	4	3.05 (.12)
Text Section, Township Range	1	28	4	3.8 (.15)
Text Subdivision Name & Lot No.	5	28	4	3.05 (.12)
Text Survey & Grant/Lease Line	5	28	4	3.05 (.12)
Text Township / Range Line	10	28	4	3.05 (.12)
Text USGS BM Datum	10	27	2	3.05 (.12)

### Plan

#### Roadside

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Environmental	99	10	4	3.8 (.15)
← Note Landscaping	4	11	4	3.05 (.12)
Text Benchmark GRS	10	34	2	3.05 (.12)
Text bldg (B,H,S,G) Overhang	14	35	2	3.05 (.12)
Text Business Name	5	35	5	4.6 (.18)
Text Cemetery	1	34	2	3.05 (.12)
Text delineator/Milemarker/SIGN	0	25	1	2.03 (.08)
Text Private Property	5	33	1	2.03 (.08)
Text Sdkw & Border	1	26	2	3.05 (.12)
Text Steps & Wheelchair Ramp	1	26	1	2.03 (.08)
Text Trail	8	34	2	2.03 (.08)
Text Fence (Woven/Chain Link)	4	32	1	2.03 (.08)



## MicroStation CADD Standards

### Plan

#### Roadway

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Abutment	0	24	2	3.05 (.12)
← Note Barrier	99	24	2	3.05 (.12)
← Note Bridge	0	24	4	3.8 (.15)
← Note Cone't Joint	0	20	1	2.03 (.08)
← Note Retaining Wall	99	23	2	3.05 (.12)
← Note Rte Label - Main Line	20	22	5	3.8 (.15)
← Note Sound Wall	99	23	2	3.05 (.12)
← Note Surface Type	0	20	1	2.03 (.08)
Text Alignment Number	20	1	1	2.03 (.08)
Text Bearing (along elem)	20	1	4	3.05 (.12)
Text C&G Sta & Offset	11	19	2	3.05 (.12)
Text Curb - Existing	114	19	2	3.05 (.12)
Text Curb or C&G	11	19	2	3.05 (.12)
Text Curve Number	20	2	1	2.03 (.08)
Text Edge of Pavement (EP)	0	20	2	3.05 (.12)
Text Edge of Pvm't Sta & Offset	0	20	2	3.05 (.12)
Text Entrance Edge of Apron	11	18	2	3.05 (.12)
Text Entrance Radius Points	11	18	2	3.05 (.12)
Text Equation	20	1	5	3.8 (.15)
Text Island Radius Points	11	19	1	2.03 (.08)
Text Matchline	2	22	5	5.00 (.25)
Text Median Radius Point	20	24	2	3.05 (.12)
Text Median or Median Strip	99	24	2	3.05 (.12)
Text PC,PRC,PT,TS,ST	20	3	4	3.8 (.15)
Text Pedestrian Overpass	5	24	2	3.05 (.12)
Text Ramp Number	20	21	4	3.8 (.15)
Text Retain Wall Sta & Offset	99	23	2	3.05 (.12)
Text Rte Intersection Tie	20	21	5	3.8 (.15)
Text Rte Label -Perm. Connection	20	22	5	3.8 (.15)
Text Rte Label -Service/Crossrd	20	21	5	3.8 (.15)
Text Rte Label -Side/Outer Roads	20	21	5	3.8 (.15)
Text Shoulder	11	18	2	3.05 (.12)
Text Shoulder Sta & Offset	11	18	2	3.05 (.12)
Text Stationing	20	1	7	5.3 (.21)
Text Stationing - Existing	20	1	4	4.6 (.18)

### Plan

#### Roadway (Temporary)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Rte Label-Temp Bypass	20	61	4	3.05 (.12)
← Note Rte Label-Temp Connection	20	61	4	3.05 (.12)
← Note Rte Label-Temp Crossover	20	61	4	3.05 (.12)
Text Alignment Number	20	61	1	2.03 (.08)
Text Bearing (along elem)	20	61	2	3.05 (.12)
Text Curve Number (along elem)	20	61	1	2.03 (.08)
Text Equation (above elem)	20	61	4	3.05 (.12)
Text PC,PRC,PT,TS,ST	20	61	4	3.05 (.12)
Text Rte Intersection Tie	20	61	4	3.05 (.12)
Text Stationing	20	61	4	3.05 (.12)
Text Striping Description	0	61	2	2.03 (.08)

### Plan

#### Sheet Labels

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
Text Date, Time, Sheet Title	0	13	0	2.85 (.11)
Text Date, Time, Sheet Title	5	6	2	3.05 (.12)
Text Dist No., Sheet No., Route	1	6	6	5.3 (.21)
Text Job No. & County	4	6	6	3.05 (.12)
Text Rev Date, Path, FN	5	7	2	3.05 (.12)

### Plan

#### Striping

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Permanent Striping Station	0	37	4	3.05 (.12)
← Note Permanent Striping Type	0	37	4	3.05 (.12)
← Note Temp Striping Station	1	36	2	3.05 (.12)

## MicroStation CADD Standards

### Plan

#### Utilities

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
<i>Text Cable TV</i>	70	56	1	2.03 (.08)
<i>Text Gase</i>	60	49	1	2.03 (.08)
<i>Text Pole (Combo Utili)</i>	5	54	1	2.03 (.08)
<i>Text Power</i>	51	55	1	2.03 (.08)
<i>Text Railroad</i>	1	53	1	2.03 (.08)
<i>Text Railroad Owner</i>	1	53	4	3.8 (.15)
<i>Text San Sewer</i>	4	51	1	2.03 (.08)
<i>Text Signal</i>	0	48	1	2.03 (.08)
<i>Text Telephone</i>	70	52	1	2.03 (.08)
<i>Text Utility Owner</i>	0	57	4	3.8 (.15)
<i>Text Water</i>	13	50	1	2.03 (.08)

### Plan

#### Waterways

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
Text 3.05mm (.12")	23	9	2	3.05 (.12)
Text 3.8mm (.15")	23	9	2	3.8 (.15)
Text 4.6mm (.18")	23	9	5	4.6 (.18)

### Plan

#### Notes (Misc.)

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Ditch Special	52	41	2	3.05 (.12)
← Note Exist. Ground Line	1	21	2	3.05 (.12)
← Note New Ground Line	0	22	2	3.05 (.12)
Text Entrance (Grade Sta. Elev)	11	17	2	3.05 (.12)
Text Flow Line Elevations	52	41	2	3.05 (.12)
Text Grade	0	21	1	2.5 (.10)
Text PC, PT Sta. Elevation	0	3	2	3.8 (.15)
Text Profile Title	1	6	5	4.6 (.18)
Text Sheet xx of xx	5	6	2	3.05 (.12)

### Traffic Control

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Barricade	0	34	2	3.05 (.12)
← Note Channelizer/Cones	0	33	2	3.05 (.12)
← Note Delineator	0	25	2	3.05 (.12)
← Note Flashing & Warning Light	20	39	2	3.05 (.12)
← Note Perm. Construction	0	15	2	3.05 (.12)
← Note Raised Pvm't Marker	20	38	2	3.05 (.12)
← Note Signal	0	48	2	3.05 (.12)
← Note Temp. Construction	0	61	2	3.05 (.12)
← Note Temp. Island	11	37	2	3.05 (.12)
← Note Temp. Striping White	0	36	2	3.05 (.12)
← Note Temp. Striping Yellow	20	36	2	3.05 (.12)
← Note Traffic Barrier	0	35	2	3.05 (.12)
← Note Work Area	0	12	2	3.05 (.12)
← Note Sign/Object Marker/Flagger	0	25	2	3.05 (.12)

### Erosion Control

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
← Note Rock Ditch Check	0	34	2	3.05 (.12)
← Note Sediment Basin	1	37	2	3.05 (.12)
← Note Silt Fence	7	38	2	3.05 (.12)
← Note Silt Fence Ditch Check	7	36	2	3.05 (.12)
← Note Slope Limits	7	42	2	3.05 (.12)
← Note Sodding	4	12	2	3.05 (.12)
← Note Straw Bale Ditch Chk	5	35	2	3.05 (.12)
← Note Temporary Berm	52	33	2	3.05 (.12)
← Note Temporary Pipe	31	39	2	3.05 (.12)

## MicroStation CADD Standards

### Lighting

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
←—————Note (Conduit)	51	46	4	3.05 (.12)
←—————Note (Junction Box)	5	48	4	3.05 (.12)
←—————Note (Lighting Pattern)	0	59	4	3.05 (.12)
←—————Note (Power Supply/Source)	51	46	4	3.05 (.12)
←—————Note (Power to Meter)	51	55	4	3.05 (.12)
←—————Note (Striping Perm White)	0	37	2	3.05 (.12)
←—————Note (Striping Perm Yellow)	20	37	2	3.05 (.12)
←—————Note (Striping Temp White)	0	36	2	3.05 (.12)
←—————Note (Striping Temp Yellow)	20	36	2	3.05 (.12)
Text (Luminaire + and offset)	0	48	4	3.05 (.12)
Text (Luminaire Post #)	0	48	5	3.05 (.12)

### Signal Sheet

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
←—————Note Conduit	51	46	1	3.05 (.12)
←—————Note Controller	0	46	1	3.05 (.12)
←—————Note Detector	0	48	1	3.05 (.12)
←—————Note Mast Arm	0	46	1	3.05 (.12)
←—————Note Perm. Striping White	0	37	1	3.05 (.12)
←—————Note Perm. Striping Yellow	20	37	1	3.05 (.12)
←—————Note Signal	0	48	1	3.05 (.12)
←—————Note Span Wire	0	46	1	3.05 (.12)
←—————Note Temp. Striping White	0	36	1	3.05 (.12)
←—————Note Temp. Striping Yellow	20	36	1	3.05 (.12)
Text Signal	0	48	2	3.05 (.12)

### Signing

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
←—————Note Pattern Area	0	12	2	3.05 (.12)
←—————Note Sign	0	25	4	3.8 (.15)

### Signing Section

#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
←—————Note Entrance	11	17	2	3.05 (.12)
←—————Note Footing	0	25	4	3.8 (.15)
←—————Note Post	8	25	4	3.8 (.15)

### Signing Section

#### Notes (Cont.)

←—————Note Roadway Grade % w/arrow	1	22	1	2.5 (.10)
←—————Note Sign	0	25	4	3.8 (.15)
Text Sign	0	25	4	3.8 (.15)
Text Station	2	22	7	5.3 (.21)

### X-Section/Culverts

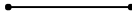
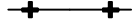
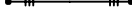

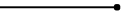


#### Notes

Component Type: Text Line Style: 0	Color	Level	Line Weight	Text Height
←—————Note Centerline of Road	20	21	2	3.05 (.12)
←—————Note Class III Exc	0	12	2	3.05 (.12)
←—————Note Existing Ground Line	4	21	4	3.05 (.12)
←—————Note Flared End Section	31	43	2	3.05 (.12)
←—————Note Pipe Callout	31	43	2	3.05 (.12)
←—————Note Profile Grade	1	22	2	3.05 (.12)
←—————Note Rock Type Ditch	0	12	2	3.05 (.12)
←—————Note Util CATV Exist	15	56	1	3.05 (.12)
←—————Note Util CATV New	70	56	4	3.05 (.12)
←—————Note Util Gas Exist	116	49	1	3.05 (.12)
←—————Note Util Gas New	60	49	4	3.05 (.12)
←—————Note Util Power Exist	115	55	1	3.05 (.12)
←—————Note Util Power New	51	55	4	3.05 (.12)
←—————Note Util Railroad	1	53	4	3.05 (.12)
←—————Note Util San Sewer Exist	114	51	1	3.05 (.12)
←—————Note Util San Sewer New	18	51	4	3.05 (.12)
←—————Note Util Storm Sewer Exist	114	43	1	3.05 (.12)
←—————Note Util Storm Sewer New	18	43	4	3.05 (.12)
←—————Note Util Telephone Exist	15	52	1	3.05 (.12)
←—————Note Util Telephone New	70	52	4	3.05 (.12)
←—————Note Util Water Exist	12	50	1	3.05 (.12)
←—————Note Util Water New	13	50	4	3.05 (.12)
Text Cut and Fill	1	21	4	3.8 (.15)
Text Ditch Flowline Elevation	52	41	1	2.5 (.10)
Text Ditch Information	52	41	1	3.05 (.12)
Text Elevation	5	1	5	3.05 (.12)
Text Entrance Grade %	11	17	1	2.5 (.10)
Text Entrance Information	11	17	1	3.05 (.12)
Text Pipe Callout	31	43	2	3.05 (.12)
Text Pipe Flowline Elevation	31	43	1	2.5 (.10)
Text Pipe Flowline Grade %	31	43	1	2.5 (.10)
Text Road Elevations	0	22	2	3.8 (.15)
Text Road Elevations Existing	1	21	2	3.05 (.12)
Text Stationing	2	21	7	5.3 (.21)

## MicroStation CADD Standards

Title


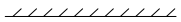
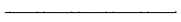

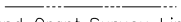
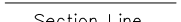
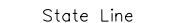
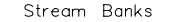
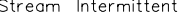
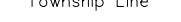
Notes

Component	Type:	Color:	Level:	Line Style:	Line Weight:
<p><b>FULLY LIMITED ACCESS HIGHWAY</b></p> <p>THIS SHALL BE A FULLY LIMITED ACCESS HIGHWAY BETWEEN STA. + AND STA. +. NO ABUTTING OWNER SHALL HAVE THE RIGHT OF DIRECT ACCESS TO SAID HIGHWAY OR ITS RIGHT-OF-WAY EXCEPT THAT ACCESS WILL BE PERMITTED TO ANY ADJACENT OUTER ROADWAY OR SERVICE ROAD TO WHICH ACCESS IS NOT SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING "NO RIGHT OF ACCESS" AS SHOWN ON THE PLANS. NO ACCESS WILL BE PERMITTED FROM OUTER ROADWAYS AND SERVICE ROADS TO THROUGHWAYS EXCEPT ALONG ROUTES CONSTRUCTED FOR THAT PURPOSE. OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.</p> <p>  BEGINNING AND ENDING OF LIMITED ACCESS   LIMITED ACCESS   NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES. </p> <p>Note Limit Access Full Hwy</p>	Cell	5	31		Varies
<p><b>PARTIAL LIMITED ACCESS HIGHWAY</b></p> <p>THIS SHALL BE A PARTIAL LIMITED ACCESS HIGHWAY, EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS, NO ABUTTER'S RIGHTS IN OR OF DIRECT ACCESS TO, FROM, OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ABUTTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ABUTTING PROPERTY WHERE THE SYMBOL SHOWN BELOW IS SHOWN ON THE RIGHT-OF-WAY LINE.</p> <p>  </p> <p>Note Limit Access Part Hwy</p>	Cell	5	32		Varies
<p><b>LIMITED ACCESS HIGHWAY</b></p> <p>THIS SHALL BE A LIMITED ACCESS HIGHWAY, BETWEEN STA. +, EXCEPT AT LOCATIONS AND AS OTHERWISE SPECIFICALLY SHOWN ON THESE PLANS, NO ABUTTER'S RIGHTS IN OR OF DIRECT ACCESS TO, FROM, OR ACROSS THE HIGHWAY OR ITS RIGHT-OF-WAY SHALL ATTACH OR BELONG TO ANY PROPERTY ABUTTING ON SAID SECTION OF HIGHWAY, OR TO ANY PERSON MERELY BECAUSE OF OWNERSHIP OF SUCH ABUTTING PROPERTY. THERE SHALL BE THE USUAL RIGHT OF ACCESS OVER ANY LOCATION SHOWN ON THESE PLANS EITHER AS (1) AN ENTRANCE OR (2) A PRIVATE UNDERPASS. WHEREVER AN ADJACENT OUTER ROADWAY OR SERVICE ROAD IS SHOWN, THERE SHALL BE THE USUAL RIGHT OF DIRECT ACCESS BETWEEN THE ABUTTING PROPERTY AND SUCH OUTER ROADWAY OR SERVICE ROAD (EXCEPT WHERE ACCESS IS SPECIFICALLY PROHIBITED BY THE SPECIAL SYMBOL DENOTING NO RIGHT OF ACCESS) AND ALONG IT TO AND FROM THE NEAREST LANE OF THE THROUGHWAY OF A PUBLIC HIGHWAY, OUTER ROADWAYS AND SERVICE ROADS, AS THE CASE MAY BE, ARE SO DESIGNATED ON THE PLANS.</p> <p>  BEGINNING AND ENDING OF LIMITED ACCESS   LIMITED ACCESS   NO RIGHT OF ACCESS OR CROSSING OF LINES BEARING THIS SYMBOL WILL BE PERMITTED UNDER ANY CIRCUMSTANCES. </p> <p>Note Limited Access Hwy</p>	Cell	5	30		Varies

## MicroStation CADD Standards





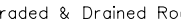

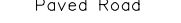
### Title

#### Lines (Misc.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 City Limits (dots)	Linear	5	28	Custom	2
 City Limits (lines)	Linear	5	28	Custom	2
 County Line	Linear	20	28	Custom	2
 Drainage Ditch Line	Linear	52	28	Custom	2
 Land Grant Survey Line	Linear	7	28	Custom	0
 Section Line	Linear	10	28	0	2
 State Line	Linear	10	28	Custom	4
 Stream Banks	Linear	23	28	0	0
 Stream Intermittent	Linear	23	28	Custom	0
 Township Line	Linear	10	28	Custom	0


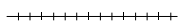
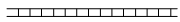

### Title

#### Lines (Road)

 Bituminous Road	Linear	0	28	Custom	2
 City Streets	Linear	0	28	0	1
 Divided Pavement	Linear	0	28	Custom	4
 Frontage Road	Linear	0	28	0	2
 Graded & Drained Road	Linear	1	28	Custom	1
 Gravel or Stone Road	Linear	1	28	Custom	1
 Paved Road	Linear	0	28	Custom	2


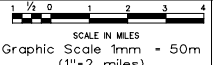
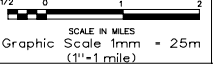
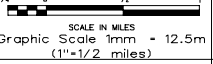








### Title

#### Lines (Road) (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Private Road	Linear	1	28	Custom	4
 Railroad	Linear	0	28	Custom	2
 Soil Surfaced Road	Linear	8	28	Custom	1
 Unimproved Road	Linear	1	28	Custom	1

### Title

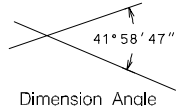
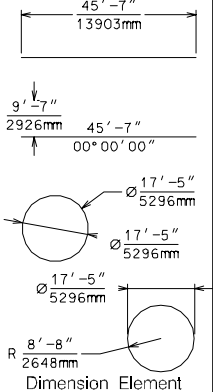
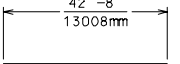
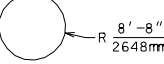
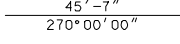
#### Symbols/Patterns

 Bridge	Cell	99	28	0	0
 SCALE IN MILES Graphic Scale 1mm = 50m (1"=2 miles)	Cell	1	62	0	5
 SCALE IN MILES Graphic Scale 1mm = 25m (1"=1 mile)	Cell	1	62	0	5
 SCALE IN MILES Graphic Scale 1mm = 12.5m (1"=1/2 miles)	Cell	1	62	0	5
 Lettered Route	Cell	0	25	0	1
 Limits Arrow	Cell	0	16	0	2
 North Arrow	Cell	2	5	0	4
 Shield-Interstate	Cell	0	25	0	0
 Shield-Interstate Bus. Loop	Cell	0	25	0	0
 Shield-Interstate MO	Cell	0	25	0	0
 Shield-MO Highway	Cell	0	25	0	0
 Shield-US Highway	Cell	0	25	0	0

## MicroStation CADD Standards


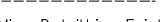
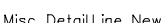


### Typical Sections

#### Dimensions

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Dimension Angle	Dimension	0	16	0	2
 Dimension Element	Dimension	0	16	0	2
 Dimension Point to Point	Dimension	0	16	0	2
 Dimension Radius	Dimension	0	16	0	2
 Label Line (Bearings etc)	Dimension	0	16	0	2

### Typical Sections

#### Lines

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Center Line of Roadway	Line	20	21	4	4
 Misc. Detail Line Exist.	Line	4	58	Custom	2
 Misc. Detail Line New	Line	1	58	0	2
 Typical Line Exist.	Line	4	21	Custom	2
 Typical Line New	Line	1	22	0	2

### Typical Sections

#### Standard Typical Sections (See PDM)

d49 English (ft)	Cell		22		
d50e English (ft)	Cell		22		
d51l English (ft)	Cell		22		
d53d English (ft)	Cell		22		
d60c English (ft)	Cell		22		
d61d English (ft)	Cell		22		
d62d English (ft)	Cell		22		
d63c English (ft)	Cell		22		
d64d English (ft)	Cell		22		
d65c English (ft)	Cell		22		
d66d English (ft)	Cell		22		
d67e English (ft)	Cell		22		

## MicroStation CADD Standards

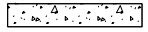

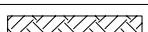
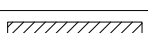
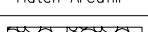

### Typical Sections

Standard Typical Sections (See PDM) Cont.

Component	Type:	Color:	Level:	Line Style:	Line Weight:
d69c English (ft)	Cell		22		
d69d English (ft)	Cell		22		
d70i1 Surface Required at Entrance & Approach	Cell		22		
d70i2 Width Transition at Bridge	Cell		22		
d70i3 Depth Transition at Bridge	Cell		22		
d70i4 Section on Tangent	Cell		22		
d70i5 Fill Existing Surface Drain Basin	Cell		22		
d70i6 Section on Superelevation	Cell		22		
d70i7 Base Widening	Cell		22		
d71g 1 Entrance and Approach	Cell		22		
d71g 3 Base Widening	Cell		22		
d71g 4 Section on Tangent	Cell		22		
d71g 5 Section on Superelevation	Cell		22		
d71g 6 Depth Transition at Bridge	Cell		22		



### Typical Sections

Symbols/Patterns

	Concrete Areafill	Area Pattern	0	12	0	2
	Cross Hatch Areafill	Area Pattern	5	12	0	2
	Earth Areafill	Area Pattern	8	12	0	2
	Hatch Areafill	Area Pattern	5	12	0	2
	Rock Areafill	Area Pattern	0	12	0	2
	Traffic Barrier	Cell	0	24	0	2

### Summary




Lines

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 2b Block	CELL	5	2	0	2
 Grid Line	L	5	2	0	2

## MicroStation CADD Standards

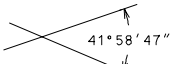
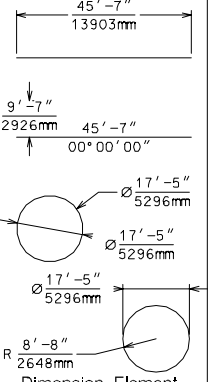
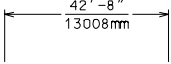
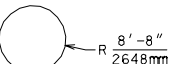
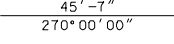
### Plan

#### Construction Symbols

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 DFPRP CHECK MARK	Cell	2	13	0	2
<b>FINAL PLANS</b> I certify that this plan sheet accurately depicts the configuration and location of the roadway and all its appurtenant features to the best of my knowledge, as I and my staff have observed the contractor's construction of this project. I specifically disclaim any responsibility for the design of this project, except as I and my staff may have modified or authorized the modification of the project design during its construction; and I disclaim responsibility for the contractor's actual construction of the project, except as I and my staff may have directed or ordered that the project be constructed.  _____ Signature                      Date	Cell	2	13	0	4
 FPR CHECK MARK	Cell	4	13	0	2
 RE CHECK MARK	Cell	5	13	0	2


### Plan

#### Dimensions

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Dimension Angle	Dimension	0	16	0	2
 Dimension Element	Dimension	0	16	0	2
 Dimension Point to Point	Dimension	0	16	0	2
 Dimension Radius	Dimension	0	16	0	2
 Label Line (Bearings etc)	Dimension	0	16	0	2



### Plan

#### Drainage

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Flow Arrow	Cell	0	41	0	2

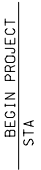
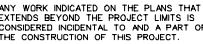
### Plan

#### Exhibits

 Modot Wave Symbol	Cell	1	1	0	9
 Modot Wave Symbol	Cell	1	1	0	9

### Plan

#### General Construction (Build)

 Begin /End Project	Cell	20	3	0	2
 Beyond Project Limits	Cell	4	14	0	2



## MicroStation CADD Standards

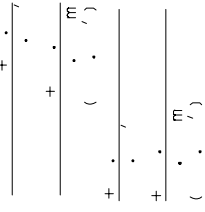
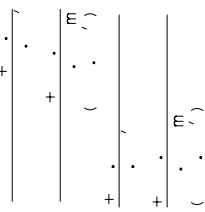
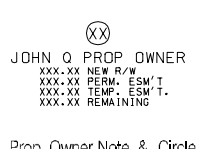
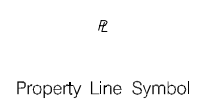
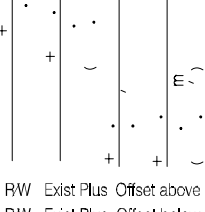
### Plan

General Cons't (Build) (Cont.)

<pre> <u>PRELIMINARY/FINAL STRIP MAP</u> ROUTE      COUNTY CLASSIFICATION JOB NO. DESIGN SPEED - DESIGN TRAFFIC - CONS'T YEAR ( ) ADT DESIGN YEAR ( ) ADT TRUCK ADT - % SUBMITTED 2 <u>LENGTH OF PROJECT</u> END OF PROJECT STA BEGINNING OF PROJECT STA APPARENT LENGTH EQUATIONS &amp; EXCEPTIONS: NONE NET LENGTH Final Strip Map Note </pre>	Cell	Varies	14	0	Varies
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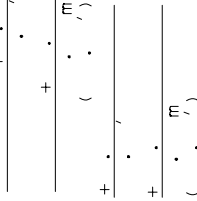
### Plan

R/W

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Esm't Perm. Plus Offset above Esm't Perm. Plus Offset below</p>	Cell	2	29	0	4
 <p>Esm't Temp. Plus Offset above Esm't Temp. Plus Offset below</p>	Cell	6	61	0	2
 <p>Prop. Owner Note &amp; Circle</p>	Cell	5	38 & 39	0	2
 <p>Property Line Symbol</p>	Cell	5	28	0	4
 <p>RW Exist Plus Offset above RW Exist Plus Offset below</p>	Cell	6	30	0	2

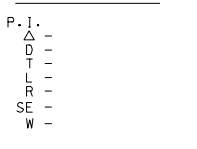
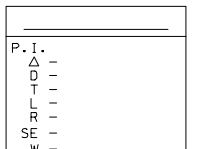
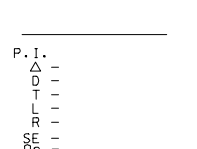
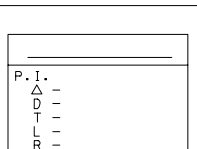
### Plan

R/W (Cont.)

 <p>R/W New Plus Offset above R/W New Plus Offset below</p>	Cell	2	31	0	2
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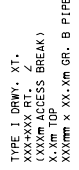
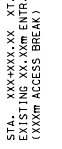

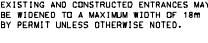

### Plan

Roadway



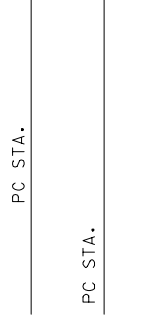
Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Curve Data (Curve)</p>	Cell	20	3	0	2
 <p>Curve Data (Curve) box</p>	Cell	Varies	3	0	2
 <p>Curve Data (Spiral)</p>	Cell	20	2	0	2
 <p>Curve Data (Spiral) box</p>	Cell	Varies	2	0	2

## MicroStation CADD Standards

**Plan**  
Roadway (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Driveway Type, Angle, Pipe Text</p>	Cell	11	17	0	4
 <p>Entrance Existing Plus Offset</p>	Cell	11	17	0	4
 <p>Entrance Sta. Descript. above Entrance Sta. Descript. below</p>	Cell	11	17 & 18	0	2
 <p>Entrance Width Note</p>	Cell	11	17	0	4
 <p>Entrance Width Box</p>	Linear	11	17	0	4

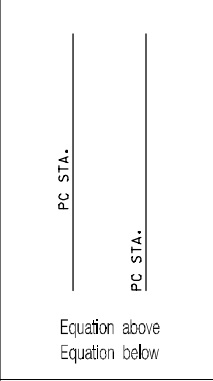
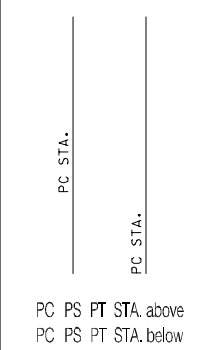
**Plan**  
Roadway (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Equation above Equation below</p>	Cell	20	1	0	5
	Linear	2	22	0	5
 <p>PC PS PT STA. above PC PS PT STA. below</p>	Cell	20	3	0	4

## MicroStation CADD Standards

### Plan

#### Roadway (Temporary)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>PC STA. PT STA. Equation above Equation below</p>	Cell	20	61	0	5
 <p>PC STA. PT STA. PC PS PT STA. above PC PS PT STA. below</p>	Cell	20	61	0	4

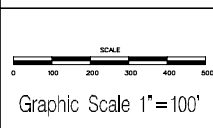
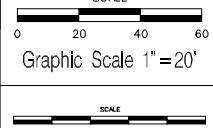
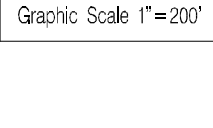
### Plan

#### Striping

Component	Type:	Color:	Level:	Line Style:	Line Weight:
<p>STRIPING LEGEND</p> <p>----- 4" INTERMITTENT WHITE ----- 4" SOLID WHITE ----- 4" INTERMITTENT YELLOW ----- 4" SOLID YELLOW</p> <p>Pavement Marking Legend</p>	Cell	0,20	37	0	2

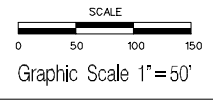
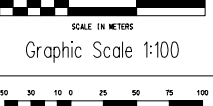
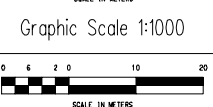
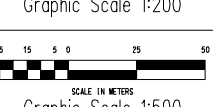
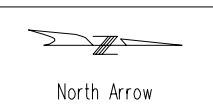
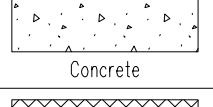
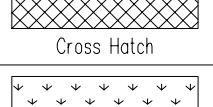
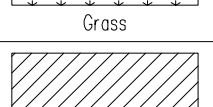
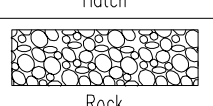
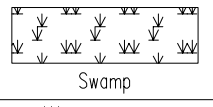
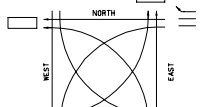
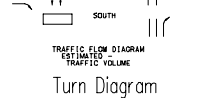

### Plan

#### Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Graphic Scale 1"=100'</p>	Cell	0	62	0	3
 <p>Graphic Scale 1"=20'</p>	Cell	0	62	0	3
 <p>Graphic Scale 1"=200'</p>	Cell	0	62	0	3

### Plan

#### Symbols/Patterns (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Graphic Scale 1"=50'</p>	Cell	0	62	0	3
 <p>Graphic Scale 1:100</p>	Cell	0	62	0	3
 <p>Graphic Scale 1:1000</p>	Cell	0	62	0	3
 <p>Graphic Scale 1:200</p>	Cell	0	62	0	3
 <p>Graphic Scale 1:500</p>	Cell	0	62	0	3
 <p>North Arrow</p>	Cell	2	5	0	4
 <p>Concrete</p>	Pattern Area	0	12	0	1
 <p>Cross Hatch</p>	Pattern Area	0	12	0	2
 <p>Grass</p>	Pattern Area	4	12	0	1
 <p>Hatch</p>	Pattern Area	0	12	0	2
 <p>Rock</p>	Pattern Area	8	12	0	1
 <p>Swamp</p>	Pattern Area	23	12	0	0
 <p>Turn Diagram</p>	Cell	1	59	0	4

## MicroStation CADD Standards





### Profile

Lines (Profile and Lines)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
Entrance Lines	L	11	17	0	4
Existing Profile Lines	L	1	21	C	2
Flow Line Elevation Lines	L	52	41	0	2
Main Grid Lines	L	4	59	0	4
New Profile Lines	L	0	22	0	4
PC, PT Line	L	0	3	0	2
Secondary Grid Lines	L	7	60	0	1

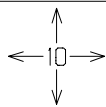
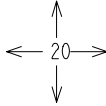
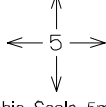

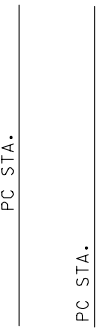
### Profile

Drainage

CMP - Circle 	L	31	43	0	2
Ditch Special RT /LT	L	52	43	C	4
 Flow Arrow	C	52	41	0	2
 Manhole 305mm - 610mm (12" - 24") San Sewer	C	18	43	0	2
 RCP 305mm - 1676mm (12" - 66") Circle	C	31	43	0	4

### Profile


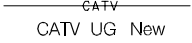
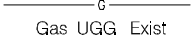
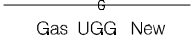
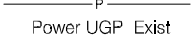
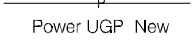
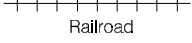

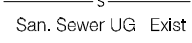
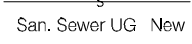
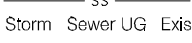
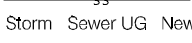
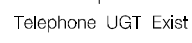
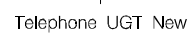
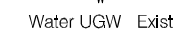
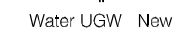
Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Graphic Scale 10m (10')	C	0	62	0	4
 Graphic Scale 20m (20')	C	0	62	0	4
 Graphic Scale 5m (5')	C	0	62	0	4
PC PT PVI Circle 	C	0	4	0	4
 PC STA. PC STA.	C	5	3	0	4
PC PT PVI Sta. Elev Above PC PT PVI Sta. Elev Below					

## MicroStation CADD Standards

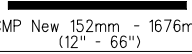
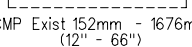
### Profile

#### Utilities

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 CATV UG Exist	L	15	56	C	2
 CATV UG New	L	70	56	C	4
 Gas UGG Exist	L	116	49	C	2
 Gas UGG New	L	60	49	C	4
 Power UGP Exist	L	115	55	C	2
 Power UGP New	L	51	55	C	4
 Railroad	L	1	53	C	2
 Railroad Dash	L	1	53	C	4
 San. Sewer UG Exist	L	18	51	C	2
 San. Sewer UG New	L	18	51	C	4
 Storm Sewer UG Exist	L	18	51	C	2
 Storm Sewer UG New	L	18	51	C	4
 Telephone UGT Exist	L	15	52	C	2
 Telephone UGT New	L	70	52	C	4
 Water UGW Exist	L	12	50	C	2
 Water UGW New	L	13	50	C	4


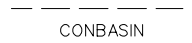
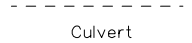
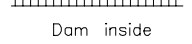
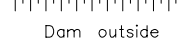
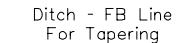
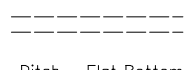
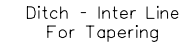
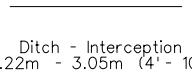
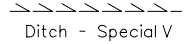
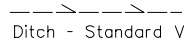

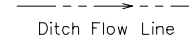
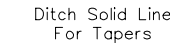
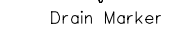
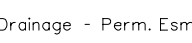
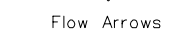
### User

#### CMP/RCP

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 CMP New 152mm - 1676mm (12" - 66")	Multi-line	31	43	Custom	1
 CMP Exist 152mm - 1676mm (12" - 66")	Multi-line	31	43	Custom	1

### User

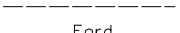
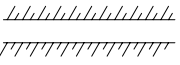
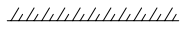
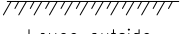
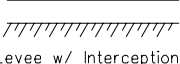
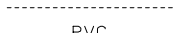

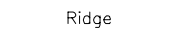
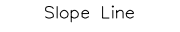
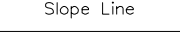
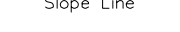
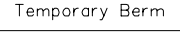
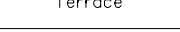
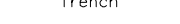
#### Drainage

 BRCHNL	Linear	95	41	0	3
 CONBASIN	Linear	95	41	Dash 3	1
 Culvert	Linear	95	43	Dash 1	1
 Dam inside	Linear	52	41	Custom	4
 Dam outside	Linear	52	41	Custom	4
 Ditch - FB Line For Tapering	Linear	52	41	Dash 5	2
 Ditch - Flat Bottom 1.22m - 3.05m (4' - 10')	Linear	52	41	Custom	2
 Ditch - Inter Line For Tapering	Linear	52	41	0	2
 Ditch - Interception 1.22m - 3.05m (4' - 10')	Linear	52	41	Custom	2
 Ditch - Special V	Linear	52	41	Custom	2
 Ditch - Standard V	Linear	52	41	Custom	2
 Ditch Block	Cell	52	41	0	0
 Ditch Flow Line	Linear	52	40	Custom	2
 Ditch Solid Line For Tapers	Linear	52	41	0	2
 Drain Marker	Cell	5	43	0	0
 Drainage - Perm. Esmt.	Linear	2	29	Dash 6	4
 Flow Arrows	Cell	52	41	0	0

## MicroStation CADD Standards





### User

#### Drainage (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Ford	Linear	31	41	Dash 5	2
 Levee - Interception 1.22m - 3.05m (4' - 10')	Linear	52	41	Custom	2
 Levee inside	Linear	52	41	Custom	2
 Levee outside	Linear	52	41	Custom	1
 Levee w/ Interception 1.22m - 3.05m (4' - 10')	Linear	52	41	Custom	2
 PVC	Linear	95	43	Dash 1	1
 Paved Ditch	Linear	1	41	0	2
 Ridge	Linear	52	40	Dash 6	1
 Slope Line	Linear	53	42	Dash 1	2
 Slope Line	Linear	53	42	Dash 1	2
 Slope Line	Linear	53	42	Dash 1	2
 Temporary Berm	Linear	52	41	Custom	2
 Terrace	Linear	52	41	Dash 6	2
 Trench	Linear	52	41	Dash 5	2











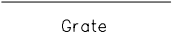



### User

#### Drop Inlets

 Drop Inlets 914mm x 610mm (3'x2') 914mm x 610mm (3'x2') 914mm x 914mm (3'x3') 914mm x 914mm (3'x3') 914mm x 610mm (3'x2')	Cell	31	43	0	0
 DI - Drop Inlet	Cell	31	43	0	0
 DI-Type D DI	Cell	31	43	0	0
 DI-Type T DI	Cell	31	43	0	0

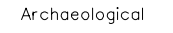





### User

#### Drop Inlets

 DI - Type X X2 (L & R)	Cell	31	43	0	0
 DI - Type X X5 (L & R)	Cell	31	43	0	0
 DI - Type X X7 (L & R)	Cell	31	43	0	0
 Drop Inlets 914mm x 610mm (3'x2') 1524mm x 610mm (5'x2') 914mm x 914mm (3'x3') 1524mm x 914mm (5'x3') 1219mm x 610mm (4'x2')	Cell	31	43	0	0
 DI - Drop Inlet	Cell	31	43	0	0
 DI-Type D DI	Cell	31	43	0	0
 DI-Type T DI	Cell	31	43	0	0
 DI - Type X X2 (L & R)	Cell	31	43	0	0
 DI - Type X X5 (L & R)	Cell	31	43	0	0
 DI - Type X X7 (L & R)	Cell	31	43	0	0
 Grate	Linear	0	43	0	2
 MH	Cell	31	57	0	0
 MH - 1.22m (4') MH	Cell	31	43	0	0
 MH - SSMH Storm Sewer MH	Cell	18	51	0	0

### User























#### Environmental

 Archaeological	Linear	99	10	0	1
 Brick	Cell	56	35	0	0
 Burned Earth	Cell	2	1	0	0
 Ceramic Items (other)	Cell	7	36	0	0
 Ceramic Stoneware	Cell	13	37	0	0
 Ceramic Whiteware	Cell	11	38	0	0

## MicroStation CADD Standards






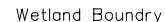
### User

#### Environmental

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Conifer	Cell	4	3	0	0
 Core	Cell	5	2	0	0
 Debitage	Cell	5	3	0	0
 Fauna	Cell	52	4	0	0
 Fire Cracked Rock	Cell	2	5	0	0
 Floral	Cell	0	17	0	0
 Foundation	Cell	56	49	0	0
 Glass Flat	Cell	103	39	0	0
 Glass Items (other)	Cell	103	40	0	0
 Historic General 1	Cell	4	52	0	0
 Historic General 2	Cell	2	53	0	0
 Historic General 3	Cell	3	54	0	0
 Historical Structure	Linear	99	10	Dash 1	1
 Human Bones	Cell	20	6	0	0
 Large Tree	Cell	4	3	0	0
 Metal Items	Cell	10	50	0	0
 Nail	Cell	16	51	0	0
 Point (arrow head)	Cell	6	7	0	0
 Pottery	Cell	8	8	0	0
 Prehistoric General	Cell	4	24	0	0
 Prehistoric General	Cell	2	33	0	0
 Prehistoric General	Cell	3	34	0	0

### User


#### Environmental (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Small Tree	Cell	4	3	0	0
 Timber Line	Linear	4	11	Custom	2
 Tool (chipped)	Cell	6	10	0	4
 Tool (ground stone)	Cell	6	10	0	4
 Unmodified Rock	Cell	6	10	0	4
 Wetland Boundry	Linear	17	10	Custom	5

## MicroStation CADD Standards


### User

#### Flared End Sections (CONC)

 FES 305mm - 1676mm (12" - 66")	Cell	31	43	0	1
Headwall	Linear	31	43	0	1








### User

#### Flared End Sections (METAL)

FES Metal	Linear	31	43	0	1
 Pipe Collar 305mm - 1829mm (12" - 72")	Cell	31	43	0	0






### User

#### Property

Component	Type:	Color:	Level:	Line Style:	Line Weight:
Building	Linear	14	35	Custom	2
 Bus Stop	Cell	0	25	0	0
 Cave	Cell	8	34	0	1
Cellar	Linear	14	33	Custom	1
Conc. Misc.	Linear	48	33	0	4
 Fence Chain Link	Linear	4	32	Custom	1
 Fence Woven Wire	Linear	4	32	Custom	1
 Flag Pole	Cell	1	33	0	0
Foundation	Linear	48	33	Custom	2
 Gate Post	Cell	4	32	0	0
 Grave	Cell	144	34	0	0
House	Linear	14	35	Custom	2
Liquid Propane Tank	Linear	28	33	0	1

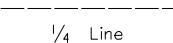
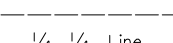
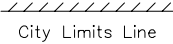
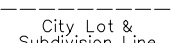
### User

#### Property (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Mailbox	Cell	0	27	0	0
 Mine	Cell	5	34	0	0
Overhang	Linear	14	35	Custom	2
Pool (Swimming)	Linear	23	33	0	2
 Satellite	Cell	15	33	0	0
Stock Pile	Linear	112	34	Custom	1
Tank	Linear	0	33	Custom	1
 Tower	Cell	15	52	0	0
Trail	Linear	8	34	Custom	4
 Wood Post	Cell	4	32	0	0

### User

#### R/W


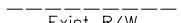
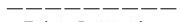


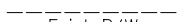
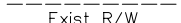

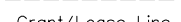



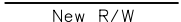








 1/4 Line	Linear	16	28	Custom	4
 1/4 1/4 Line	Linear	16	28	Custom	4
Borrow Area	Linear	8	28	0	4
 City Limits Line	Linear	5	28	Custom	4
 City Lot & Subdivision Line	Linear	5	28	Custom	4
County Line	Linear	10	28	Custom	5
Easement Perm.	Linear	2	29	Custom	4
Easement Temp.	Linear	6	61	Custom	2



## MicroStation CADD Standards


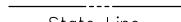
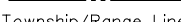
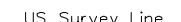
### User

R/W (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Exist. Limited Access Symbol	Cell	6	30	0	0
 Exist. R/W Limited Access	Linear	6	30	Custom	4
 Exist. R/W Line	Linear	6	30	Custom	4
 Exist. R/W Marker (Conc. or Copper)	Cell	6	30	0	2
 Exist. R/W Marker (Steel)	Cell	6	30	0	2
 Exist. R/W No Right Access	Linear	6	30	Custom	4
 Exist. R/W Prop. Limit Access	Linear	6	30	Custom	4
 Exist. Terminal Point Symbol	Cell	22	30	0	2
 Grant/Lease Line	Linear	5	28	Dash 4	4
 Landcorner	Cell	5	28	0	2
 Latitude/Longitude Line	Linear	9	28	0	1
 New Limited Access Symbol	Cell	2	31	0	0
 New R/W Limited Access Line	Linear	2	31	Custom	9
 New R/W Line	Linear	2	31	Custom	9
 New R/W Marker (Conc. or Copper)	Cell	2	31	0	2
 New R/W Marker (Steel)	Cell	2	31	0	2
 New R/W No Right Access	Linear	2	31	Custom	9
 New Terminal Point Symbol	Cell	2	31	0	2
 Property Line	Linear	5	28	Dash 5	2
 Property Pin	Cell	5	33	0	0
 Property Tie	Cell	5	28	0	0




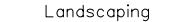

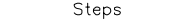
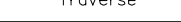

### User

R/W (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Section Line	Linear	10	28	Dash 6	5
 State Line	Linear	10	28	Custom	5
 Township/Range Line	Linear	10	28	Custom	5
 US Survey Line	Linear	16	28	Dash 6	2



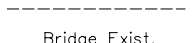
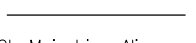

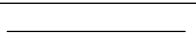
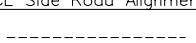
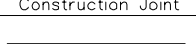
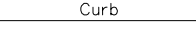
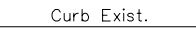


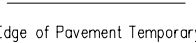
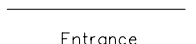
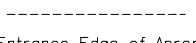
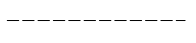
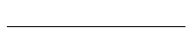

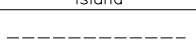
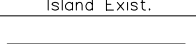
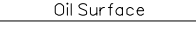
### User

Roadside

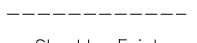

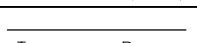
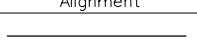
Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Benchmark	Cell	10	27	0	0
 Border	Linear	5	26	0	2
 GRS Monument	Cell	10	27	0	0
 Landscaping	Linear	4	11	0	3
 Side Walk	Linear	1	26	Custom	2
 Steps	Linear	1	26	0	2
 Traverse	Linear	5	58	Dash 2	2
 Wheelchair Ramp	Linear	1	26	0	2

## MicroStation CADD Standards

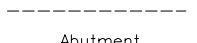
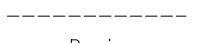
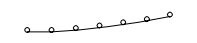
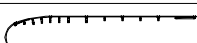
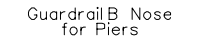
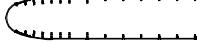
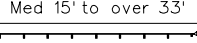
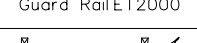
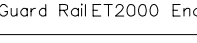



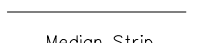
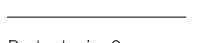
### User Roadway

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Baseline Ramp Alignment	Linear	20	21	0	6
 Bridge	Linear	7	24	0	6
 Bridge Exist.	Linear	109	24	Dash 3	1
 CL Main Line Alignment	Linear	20	22	0	6
 CL Main Line Alignment - Exist	Linear	5	21	0	1
 CL Side Road Alignment	Linear	20	21	0	6
 Construction Joint	Linear	0	20	Dash 2	2
 Curb	Linear	11	19	0	4
 Curb Exist.	Linear	114	19	Dash 3	2
 Edge of Pavement	Linear	0	20	0	2
 Edge of Pavement Exist.	Linear	112	20	Dash 3	2
 Edge of Pavement Temporary	Linear	0	61	0	2
 Entrance	Linear	11	17	0	2
 Entrance Edge of Apron	Linear	11	41	Dash 2	2
 Entrance Exist.	Linear	114	17	Dash 3	2
 Entrance Temporary	Linear	11	61	0	2
 Island	Linear	11	19	0	2
 Island Exist.	Linear	114	19	Dash 3	2
 Oil Surface	Linear	1	20	0	2
 Outer Road Alignment	Linear	20	21	0	6
 Shoulder	Linear	11	18	0	2

### User Roadway (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Shoulder Exist.	Linear	114	18	Dash 3	2
 Shoulder Temporary	Linear	11	61	0	2
 Temporary Bypass Alignment	Linear	20	61	0	6
 Temporary Crossover Alignment	Linear	20	61	0	6








### User Safety

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Abutment	Linear	51	24	Dash 3	1
 Barrier	Linear	51	24	Dash 3	1
 Guardrail	Cell	1	24	0	0
 Guardrail B Nose for Piers	Cell	24	19	0	2
 Guardrail B Nose Med 15' to over 33'	Cell	24	19	0	2
 Guard Rail ET2000	Cell	2	24	0	4
 Guard Rail ET2000 End	Cell	2	24	0	4
 Guard Rail Line Exist.	Linear	51	24	Custom	2
 Guard Rail Line New	Linear	19	24	Custom	4
 Median	Linear	51	24	0	2
 Median Strip	Linear	51	24	0	2
 Pedestrian Overpass	Linear	51	24	0	2
 Retaining Wall	Linear	51	23	Dash 3	2
 Sound Wall	Linear	51	23	Dash 3	2

## MicroStation CADD Standards




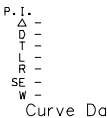
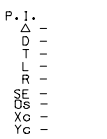

### User

#### Signs/Signals

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 GW Guy Wire	Cell	0	46	0	0
 Object Marker	Cell	5	57	0	0
 Power Supply	Cell	2	46	0	0
 SIGBOX (Signal Box)	Cell	0	48	0	0
 SIGCNTRL (Signal Control)	Cell	0	46	0	0
 SIGPOST (Signal Post)	Cell	5	48	0	0
 SIGN	Cell	0	25	0	0






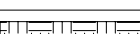
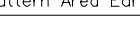
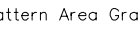
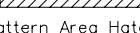
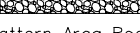





### User

#### Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 12S - 3.66m (12') Stop Line	Cell	0	36	0	0
 14S - 4.27m (14') Stop Line	Cell	0	36	0	0
 24S - 7.32 (24') Stop Line	Cell	0	36	0	0
 Curve Data	Cell	20	2	0	2
 Curve Data - Spiral	Cell	20	2	0	2
 LA Traffic Flow Arrow	Cell	20	8	0	0




















### User

#### Symbols/Patterns (Cont.)




















Component	Type:	Color:	Level:	Line Style:	Line Weight:
 North Arrow	Cell	2	5	0	4
 PC PT PRC ST TS Circles	Cell	20	4	0	4
 PI Lines	Linear	20	3	Dash 1	1
 Pattern Area Concrete	Area Pattern	0	0	0	1
 Pattern Area Cross Hatch	Area Pattern	0	0	0	1
 Pattern Area Earth	Area Pattern	0	0	0	1
 Pattern Area Grass	Area Pattern	0	0	0	1
 Pattern Area Hatch	Area Pattern	0	0	0	1
 Pattern Area Rock	Area Pattern	0	0	0	1
 Pattern Area Swamp	Area Pattern	0	0	0	1
 RA Traffic Flow Arrow	Cell	20	8	0	0
 SA Traffic Flow Arrow	Cell	20	8	0	0
 SLA Traffic Flow Arrow	Cell	20	8	0	0
 SRA Traffic Flow Arrow	Cell	20	8	0	0
 SRL Traffic Flow Arrow	Cell	20	8	0	0

## MicroStation CADD Standards

### User Utilities

Component	Type:	Color:	Level:	Line Style:	Line Weight:
CATV C - Under Gnd CATV Exist.	Linear	15	56	Custom	2
CATV C - Under Gnd CATV New	Linear	70	56	Custom	2
 G - GDRIP	Cell	60	49	0	1
 G - GFILLER	Cell	60	49	0	1
 G - GMARKER	Cell	60	49	0	1
 G - GMETER	Cell	60	49	0	1
 G - GVALVE	Cell	60	49	0	1
 G - GVENT	Cell	60	49	0	1
 G - Gas Island	Linear	60	49	0	2
 G - Under Gnd Gas Exist.	Linear	116	49	Custom	2
 G - Under Gnd Gas New	Linear	28	49	Custom	2
 P - Anchor	Cell	5	54	0	1
 P - CTVRISER	Cell	5	54	0	1
 P - PED	Cell	1	54	0	1
 P - POLEGUY	Cell	5	54	0	1
 P - POLEL (Light)	Cell	5	54	0	1
 P - POLEP (Power)	Cell	5	54	0	1
 P - POLEPC (Power/Cable)	Cell	5	54	0	1
 P - POLEPL (Power/Light)	Cell	5	54	0	1
 P - POLEPR (Power w/ Riser)	Cell	5	54	0	1
 P - POLEPTC (Power/Tele/Cable)	Cell	5	54	0	1








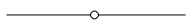





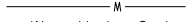
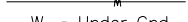




### User Utilities (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 P - POLEPTCL (Pow/Tele/Cable/Light)	Cell	5	54	0	1
 P - POLET (Telephone)	Cell	5	54	0	1
 P - POLETC (Tele/Cable)	Cell	5	54	0	1
 P - POLETP (Tele/Power)	Cell	5	54	0	1
 P - POWERHV (High Voltage Tower)	Cell	5	54	0	1
 P - POWERHW (H-Frame PP)	Cell	5	54	0	1
 Power Over Head Exist.	Linear	115	55	Custom	2
 Power Over Head New	Linear	27	55	Custom	2
 P - Tower	Cell	15	54	0	1
 Under Gnd Power Exist.	Linear	115	55	Custom	2
 Under Gnd Power New	Linear	27	55	Custom	2
 RR - RAILTOP	Linear	1	53	Custom	2
 RR - RRT	Linear	1	53	Custom	2
 RR - Railroad Dash	Linear	1	53	Custom	2
 RR - Railroad Single	Linear	1	53	Custom	2
 S - Drain Field	Linear	13	51	Dash 2	2
 S - SAN MH	Cell	18	51	0	1
 S - Sanitary Sewer Exist.	Linear	130	51	Custom	2
 S - Sanitary Sewer New	Linear	18	51	Custom	2

## MicroStation CADD Standards






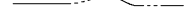

### User

#### Utilities (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 S - Septic Tank	Linear	18	51	Custom	2
 SS - Storm Sewer Exist.	Linear	130	51	Custom	2
 SS - Storm Sewer New	Linear	18	51	Custom	2
 T - TELERISER	Cell	5	54	0	1
 T - TELEPAY (Pay Telephone)	Cell	15	52	0	1
 T - TMH (Tele. Manhole)	Cell	15	52	0	1
 T - Tele. Pedestal	Cell	1	52	0	1
 T - Telephone Over Head Exist.	Linear	15	52	Custom	2
 T - Telephone Over Head New	Linear	70	52	Custom	2
 T - Under Gnd Telephone Exist.	Linear	15	52	Custom	2
 T - Under Gnd Telephone New	Linear	70	52	Custom	2
 W - HYDRANT	Cell	31	50	0	1
 W - Sprinkler	Cell	13	50	0	1
 W - Under Gnd Water Exist.	Linear	12	50	Custom	2
 W - Under Gnd Water New	Linear	13	50	Custom	2
 W - WELL	Cell	3	50	0	1
 W - WFAUCET	Cell	13	50	0	1
 W - WMETER	Cell	13	50	0	1
 W - WVALVE	Cell	13	50	0	1





### User

#### Utilities (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 CL of River	Linear	3	9	cl3	2
 Lake	Linear	3	9	Phantom	4
 Pond	Linear	3	9	Phantom	4
 River	Linear	3	9	0	4
 Spring	Cell	23	9	0	0
 Stream	Linear	3	9	p/2	4
 Swamp	Cell	23	9	0	0



### Reference

#### Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Centerline	L	1	22	0	5
 Grid Line	L	2	60	0	4
 Tie Circle	L	1	58	0	4
 Tie Line	L	4	58	0	4

### Coordinate





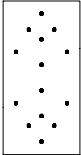
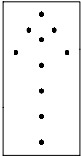

#### Lines (Grid)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Main Grid Line	L	4	59	0	4
 Secondary Grid Line	L	7	60	0	1

## MicroStation CADD Standards









### Traffic Control

Signs (D-2bs)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Work Zone Fine	 CONST-3A				
Speeding/Passing Plate	 CONST-3X				
Gore Exit	 E05-1				
 Flagger (Symbol)	cell	2	25	0	0
Flashing Arrow Panel (Double)					
Flashing Arrow Panel (Single)					
Flashing Electric Light					
















### Traffic Control

Signs (D-2bs) (Cont.)












Road Work Next __ Miles	 G020-1				
End Road Work	 G020-2a				
Work Zone Plaque	 G023-1				
Give 'Em A Brake					
Advance Left Turn Arrow	 M5-1L				
Advance Right Turn Arrow	 M5-1R				
Turn Arrow	 M6-1				
Straight Arrow	 M6-3				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)







Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Alternate Assembly					
	MD4-1				
					
	M3--				
					
Detour (in Left Arrow)					
	M1--				
					
	M--				
					
Detour (in Right Arrow)	MD4-10L				
					
					
	MD4-10R				
					
Detour Assembly					
	MD4-8				
					
	M3--				
					
					
	M1--				
					
	M--				
					

**Traffic Control**  
Signs (D-2bs) (Cont.)






Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
End Detour					
	MD4-8a				
					
Detour w/ Left Arrow					
	MD4-9L				
					
Detour w/ Right Arrow					
	MD4-9R				
					
Moveable Barricade (Left)	cell	2	34	0	0
					
Moveable Barricade (Right)	cell	2	34	0	0
					
Object Marker Type I	cell	6	25	0	2
					
Object Marker Type II	cell	6	25	0	2
					
Object Marker Type III	cell	6	25	0	2
					

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Stop					
	R1-1b				
Yield					
	R1-2				
4-Way (Plaque)					
	R1-3				
3-Way (Plaque)					
	R1-5				
Stop Here On Red (Arrow)					
	R10-6				
Road Closed					
	R11-2				







**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Road Closed XX Miles Ahead					
	R11-3a				
Road Closed To Thru Traffic					
	R11-4				
To Oncoming Traffic					
	R12-3b				
Speed Limit + XX					
	R2-1				
Reduced Speed Ahead					
	R2-5a				









## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)








Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
No Right Turn (Symbol)					
	R3-1				
No Left Turn (Symbol)					
	R3-2				
No Turns					
	R3-3				
No U-Turn (Symbol)					
	R3-4				
Left Lane Must Turn Left					
	R3-7L				
Right Lane Must Turn Right					
	R3-7R				

**Traffic Control**  
Signs (D-2bs) (Cont.)

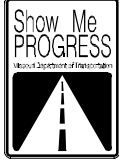
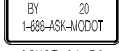





Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Do Not Pass					
	R4-1				
Keep Left					
	R4-1TdL				
Keep Right					
	R4-1TdR				
Pass With Care					
	R4-2				
Keep Right (Horiz. Arrow)					
	R4-7a				
Keep Left (Horiz. Arrow)					
	R4-7dL				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)


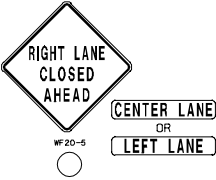
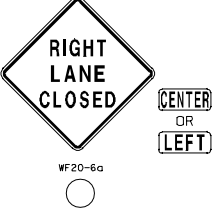
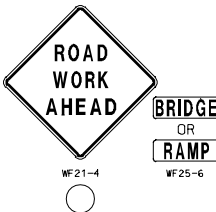

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Do Not Enter					
	R5-1				
Wrong Way					
	R5-1a				
One Way Arrow (Left)					
	R6-1L				
One Way Arrow (Right)					
	R6-1R				
One Way (Left)					
	R6-2L				
One Way (Right)					
	R6-2R				
When Flashing					
	S4-4				

**Traffic Control**  
Signs (D-2bs) (Cont.)

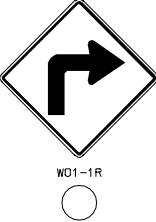




Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Show Me Progress					
	CONST-2-30				
					
	CONST-2A-30				
Sign Symbol w/ Number (1 Sided)		cell	0	25	0
Sign Symbol w/ Number (2 Sided)		cell	0	25	0
Special Low Clearance XX' XX"					
Special Width Restriction					
Railroad Crossing					
	W10-1				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)






Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
One Lane Road Ahead					
Right Lane Closed Ahead					
Right Lane Closed					
Road Work Ahead					
Turn (Symbol Left Arrow)					

**Traffic Control**  
Signs (D-2bs) (Cont.)



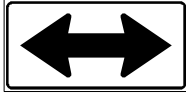


Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Turn (Symbol Right Arrow)					
Curve (Symbol Left Arrow)					
Curve (Symbol Right Arrow)					
Reverse Turn (Symbol Left Arrow)					
Reverse Turn (Symbol Right Arrow)					

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)

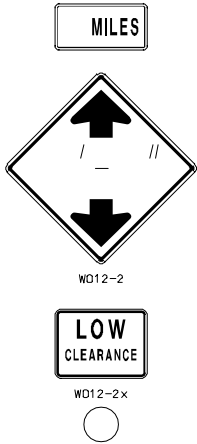




Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Double Arrow Reverse Curve (Symbol Left Arrow)	 W01-4bL				
Double Arrow Reverse Curve (Symbol Right Arrow)	 W01-4bR				
Triple Arrow Reverse Curve (Symbol Left Arrow)	 W01-4cL				
Triple Arrow Reverse Curve (Symbol Right Arrow)	 W01-4cR				
Reverse Curve (Symbol Left Arrow)	 W01-4L				

**Traffic Control**  
Signs (D-2bs) (Cont.)








Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Reverse Curve (Symbol Right Arrow)	 W01-4R				
Horizontal Arrow Sm. or Lg.	 W01-6 (Sm.) OR W01-6a (Lg.)				
Double Head Horizontal Arrow. Sm. or Lg.	 W01-7 (Sm.) OR W01-7a (Lg.)				
Chevron Sm. or Lg.	 W01-8 (Sm.) OR W01-8a (Lg.)				
Double Down Arrow	 W012-1				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)






Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Low Clearance	 <p>WD12-2</p> <p>WD12-2x</p>				
Overhead Low Clearance	 <p>WD12-3a</p>  <p>WD12-3b</p>				
Advisory Speed (Plaque)	 <p>WD13-1</p>				
Detour Ahead	 <p>WD20-2</p>				

**Traffic Control**  
Signs (D-2bs) (Cont.)






Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Road Closed Ahead	 <p>WD20-3</p>				
One Lane Road Ahead	 <p>WD20-4</p>				
Rt/Ctr/Lt Lane Closed Ahead	 <p>WD20-5</p> 				
Rt/Ctr/Lt Lane Closed	 <p>WD20-6a</p> 				
Flagger (Sign)	 <p>WD20-7a</p>				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)





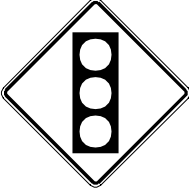
Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Be Prepared to Stop	 W020-7b				
500 Ft. / 1000 Ft.	 W020-7x				
Open Trench	 W020-9c				
Fresh Oil	 W021-2				
Road Work Ahead	 W021-4      W025-6				

**Traffic Control**  
Signs (D-2bs) (Cont.)





Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Shoulder Work Ahead	 W021-5b				
Sand Blasting	 W021-7				
Blasting Zone 1000 Ft	 W022-1				
Turn Off 2-Way Radios	 W022-2				
End Blasting Zone	 W022-3				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)




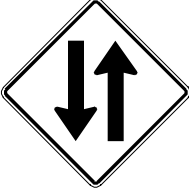
Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
1/2 Mile 1 Mile (Plaque)					
	W025-5				
Bridge/Ramp Plate					
	W025-6				
Stop Ahead					
	W03-1				
Yield Ahead					
	W03-2				
Signal Ahead (Symbol)					
	W03-3				

**Traffic Control**  
Signs (D-2bs) (Cont.)






Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Merge (Symbol From Left)					
	W04-1L				
Merge (Symbol From Right)					
	W04-1R				
Road Narrows					
	W05-1				
One Lane Bridge					
	W05-3				

## MicroStation CADD Standards

**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Narrow Lanes	 W05-5				
Divided Highway (Symbol)	 W06-1				
Divided Highway Ends (Symbol)	 W06-2				
Two Way Traffic (Symbol)	 W06-3				







**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Next XX Miles (Plaque)	 W07-3a				
Bump	 W08-1				
Uneven Lanes	 W08-11				
No Center Stripe	 W08-12				
Dip	 W08-2				





## MicroStation CADD Standards







**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Pavement Ends					
	WD8-3				
Soft Shoulder					
	WD8-4				
Slippery When Wet (Symbol)					
	WD8-5				
Truck Crossing					
	WD8-6				
Truck Entrance					
	WD8-6c				
Loose Gravel					
	WD8-7				

**Traffic Control**  
Signs (D-2bs) (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Low Shoulder					
	WD8-9				
Shoulder Drop-Off					
	WD8-9a				

**Traffic Control**  
Pavement Markings

Component	Type:	Color:	Level:	Line Style:	Line Weight:
100 mm (4") White Intermittent	Linear	0	36	Dash	7
100 mm (4") Yellow Intermittent	Linear	20	36	Dash	7
100 mm (4") White Solid	Linear	0	36	0	7
100 mm (4") Yellow Solid	Linear	20	36	0	7
 Perm Arrow Marking Left	Cell	0	37	0	4
 Preformed Railroad Crossing	Cell	0	8	0	3
 Perm Arrow Marking Right	Cell	0	37	0	4
 Perm Arrow Marking Straight	Cell	0	37	0	4
 Perm Arrow Marking Straight Lt	Cell	0	37	0	4
 Perm Arrow Marking Straight Rt	Cell	0	37	0	4

## MicroStation CADD Standards

### Traffic Control

#### Pavement Markings

Component	Type:	Color:	Level:	Line Style:	Line Weight:
ONLY Only Marking 8'	Cell	0	37	0	4
ONLY Only Marking 10'	Cell	0	37	0	4
Stop Line 12', 14' & 24'	Cell	0	36	0	0
Temp. (4'') White Intermittent	Linear	0	36	Dash	7
Temp. (4'') Yellow Intermittent	Linear	20	36	Dash	7
Temp. (4'') White Solid	Linear	0	36	0	7
Temp. (4'') Yellow Solid	Linear	20	36	0	7

### Traffic Control

#### Symbols/Patterns

SCALE 0 20 40 60 Graphic Scale 1"=20'	Cell	0	62		
SCALE 0 50 100 150 Graphic Scale 1"=50'	Cell	0	62		
SCALE 0 100 200 300 400 500 Graphic Scale 1"=100'	Cell	0	62		
SCALE 0 100 200 300 400 500 Graphic Scale 1"=200'	Cell	0	62		
North Arrow	Cell	2	5		
<b>TRAFFIC CONTROL LEGEND</b> A. SIGN (SINGLE SIDED) X SIGN (DOUBLE SIDED) F FLAGGER C CONE M CHANNELIZER E BARRICADE Traffic Control Legend	Cell		59		
NORTH WEST EAST SOUTH TRAFFIC FLOW DIAGRAM ESTIMATED TRAFFIC VOLUME Turning Diagram	Cell		59		
Work Area Pattern	Area Pattern	0	12	0	1

### Traffic Control


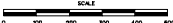

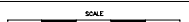
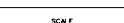


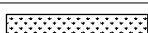







#### Traffic Control Devices

Component	Type:	Color:	Level:	Line Style:	Line Weight:
Attenuator	L	0	40	0	2
Portable Changeable Message Sign (PCMS)	Cell		35		
Channelizer	Cell		33		
Channelizer Side View	Cell		33		
Cone	Cell		33		
Delineator (filled circle)	Cell	0	25	0	2
Delineator (filled square)	Cell	0	25	0	2
Delineator (filled triangle)	Cell	0	25	0	2
Delineator (open circle)	Cell	0	25	0	2
Flagger Symbol	Cell		25	0	0
Movable Barricade Plan View	Cell		34	0	0
Movable Barricade Side View Lt	Cell	Varies	35	0	0
Movable Barricade Side View Rt	Cell	Varies	35	0	0
Raised Pvm't Marker	Linear	20	38	0	2
Sign Symbol (1 & 2 Sided)	Cell	0	25	0	0
Sign Symbol w/Number (1 Sided)	Cell	0	25	0	0
Sign Symbol w/Number (2 Sided)	Cell	0	25	0	0
Traffic Barrier Plan View	Multi-Line	0	35	0	2
Traffic Barrier Section View	Cell		35		

## MicroStation CADD Standards






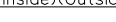

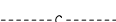

### Temporary Erosion Control

#### Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Flow Arrow	Cell	52	41	0	2
 Graphic Scale 1"= 100'	Cell	0	62	0	3
 Graphic Scale 1"= 20'	Cell	0	62	0	3
 Graphic Scale 1"= 200'	Cell	0	62	0	3
 Graphic Scale 1"= 50'	Cell	0	62	0	3
 North Arrow	Cell	2	5	0	4
 Rock Lining	Area Pattern	0	12	0	5
 Sodding Area Pattern	Area Pattern	4	12	0	5
<b>TEMPORARY EROSION CONTROL LEGEND</b>  ROCK DITCH CHECK  STRAW BALE DITCH CHECK  STRAW BALE FENCE  TEMPORARY BERM  SILT FENCE  SILT FENCE  STRAW BALE FENCE	Cell	5	1	0	4


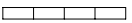
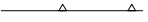
### Temporary Erosion Control

#### Temporary Erosion Control Devices

 Temporary Pipe 152mm - 914mm(6" - 36")	MultiLine	31	39	0	2
 Rock Ditch Check	Cell	1	34	0	0
 Sediment Basin	Linear	1	37	0	2
 Silt Fence (Inside)(Outside)	Linear	7	38	Custom	4
 Silt Fence B (Inside)(Outside)	Linear	7	38	Custom	4
 Silt Fence F (Inside)(Outside)	Linear	7	38	Custom	4
 Slope Limits	Linear	7	42	Custom	4
 Slope Limits in Cut	Linear	7	42	Custom	4
 Slope Limits in Fill	Linear	7	42	Custom	4

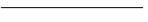
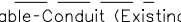
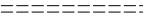


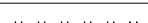

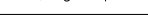








### Temporary Erosion Control

#### Temporary Erosion Control Devices (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Straw Bale Ditch Check	Cell	5	35	0	0
 Straw Bale Fence	Cell	5	35	0	0
 Temporary Berm	Linear	52	33	Custom	4

### Lighting




#### Equipment

 Cable-Conduit	Linear	51	46	Custom	4
 Cable-Conduit (Existing)	Linear	51	46	3	2
 Conduit, rigid (Existing)	Linear	51	46	Custom	1
 Conduit, rigid (bridge)	Linear	51	46	Custom	2
 Conduit, rigid (capped)	Linear	51	46	Custom	2
 Conduit, rigid (median)	Linear	51	46	Custom	2
 Conduit, rigid (pushed)	Linear	51	46	Custom	2
 Conduit, rigid (trenched)	Linear	51	46	Custom	2
 Controller, Lighting	Cell	0	46	0	0
 Controller, Lighting (Existing)	Cell	0	46	Custom	0
 Junction Box	Cell	5	48	0	0
 Post, wood	Cell	4	48	0	0
 Power Cable	Linear	51	55	0	2
 Power Supply	Cell	2	46	0	0
 Pull Box Conc. Type 1	Cell	0	48	0	0
 Pull Box Conc. Type 2	Cell	0	48	0	0

## MicroStation CADD Standards




### Lighting

#### Equipment (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Pull Box preformed Type 1	Cell	0	48	0	0
 Pull Box preformed Type 2	Cell	0	48	0	0
 Pull Box (Existing)	Cell	0	61	0	0









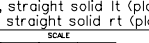
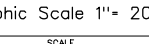
### Lighting

#### Luminaires

 Arm w/150w H.P.S.L. (4' to 15')	Cell	0	48	0	0
 Arm w/250w H.P.S.L. (4' to 15')	Cell	0	48	0	0
 Arm w/400w H.P.S.L. (4' to 15')	Cell	0	48	0	0
Existing Arm & Luminaire	Cell	0	48	0	0
High Mast Tower w/Luminaire	Cell	0	48	0	0
Underpass, 150w Luminaire	Cell	0	48	0	0



### Lighting

#### Symbols/Patterns

 Arrow, left open (plan)	Cell	0	8	0	0
 Arrow, left solid (plan)	Cell	20	8		
 Arrow, right open (plan)	Cell		8		
 Arrow, right solid (plan)	Cell	20	8		
 Arrow, straight open lt (plan)  Arrow, straight open rt (plan)	Cell		8		
 Arrow, straight solid lt (plan)  Arrow, straight solid rt (plan)	Cell	20	8		
 Graphic Scale 1"= 20'	Cell		62		3
 Graphic Scale 1"= 50'	Cell		62		3


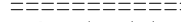








### Lighting

#### Symbols/Patterns (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Lighting Legend	Cell				
Lighting Pattern 30'	Cell				
Lighting Pattern 45'	Cell				
 North Arrow	Cell	2	5	0	0

### Signals

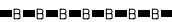
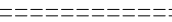

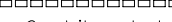














#### Equipment

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Conduit, bridge	Linear	51	46	Custom	2
 Conduit, existing	Linear	51	46	Custom	2
 Conduit, median	Linear	51	46	Custom	2
 Conduit, pushed	Linear	51	46	Custom	2
 Conduit, trenched	Linear	51	46	Custom	2
 Controller, Signals	Cell	0	46	0	0
 Controller, Signals (existing)	Cell	0	46	0	0
 Detector	Cell	0	48	0	0
 Detector, 6'x30' loop	Cell	0	48	0	0
 Detector, 6'x6' loop	Cell	0	48	0	0

## MicroStation CADD Standards









### Signals

#### Equipment

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Conduit, bridge	Linear	51	46	Custom	2
 Conduit, existing	Linear	51	46	Custom	2
 Conduit, median	Linear	51	46	Custom	2
 Conduit, pushed	Linear	51	46	Custom	2
 Conduit, trenched	Linear	51	46	Custom	2
 Controller, Signals	Cell	0	46	0	0
 Controller, Signals (existing)	Cell	0	46	0	0
 Detector	Cell	0	48	0	0
 Detector, 6'x30' loop	Cell	0	48	0	0
 Detector, 6'x6' loop	Cell	0	48	0	0
 Detector, push button	Cell	0	48	0	0
 Junction Box	Cell	5	48	0	0
 Post, wood	Cell	4	32	0	0
 Power Cable	Linear	51	46	Custom	1
 Power Supply	Cell	2	46	0	0
 Pull Box Conc. Type 1	Cell	0	48	0	0
 Pull Box Conc. Type 2	Cell	0	48	0	0
 Pull Box (existing)	Cell	5	48	0	0


### Signals

#### Equipment (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Pull Box preformed Type 1	Cell	0	48	0	0
 Pull Box preformed Type 2	Cell	0	48	0	0
 Signal Head, (opt. lim. conv.)	Cell	0	48	0	0
 Signal Head, (opt. lim.)	Cell	0	48	0	0
 Signal Head, (pedestrian)	Cell	0	48	0	0
 Signal Head, (standard)	Cell	0	48	0	0
 Signal Wire, straight (d38)	Linear	0	48	0	2
 Span Wire	Linear	0	46	0	1


### Signals

#### Mast Arms Type A Base

 A Type Base 203mm x 118mm (8' - 54')	Cell	0	46	0	0
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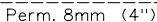
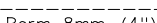
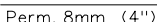

### Signals

#### Mast Arms Type B Base

 B Type Base 203mm x 118mm (8' - 54')	Cell	0	46	0	0
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### Signals













#### Pavement Marking

 Perm. 8mm (4'') Intermittent White	Linear	0	37	Dash 3	4
 Perm. 8mm (4'') Intermittent Yellow	Linear	20	37	Dash 3	4
 Perm. 8mm (4'') Solid White	Linear	0	37	0	4
 Perm. 8mm (4'') Solid Yellow	Linear	20	37	0	4

## MicroStation CADD Standards






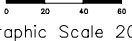
### Signals

#### Pavement Marking

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Preformed Left Arrow	Cell	0	8	0	4
 Preformed Right Arrow	Cell	0	8	0	4
 Preformed Straight Arrow	Cell	0	8	0	4
 Preformed Straight Left Arrow	Cell	0	8	0	4
 Preformed Straight Right Arrow	Cell	0	8	0	4
 Preformed ONLY (8')	Cell	0	8	0	4
 Preformed ONLY (10')	Cell	0	8	0	4
 Stop Line (12', 14' & 24')	Cell	0	37	0	4
 Temp. 8mm (4'') Intermittent White	Linear	0	36	Dash 3	4
 Temp. 8mm (4'') Intermittent Yellow	Linear	20	36	Dash 3	4
 Temp. 8mm (4'') Solid White	Linear	0	36	0	4
 Temp. 8mm (4'') Solid Yellow	Linear	20	36	0	4

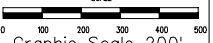
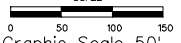










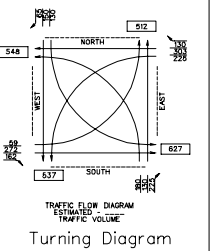
### Signals

#### Symbols/Patterns

 D 38 Standard Plan Light	Cell	0	46	0	1
 D 38 Standard Plan No Turn	Cell	20	46	0	1
 D 38 Standard Plan Right Turn	Cell	20	46	0	1
 D 38 Standard Stop Line	Cell	20	46	0	1
 Graphic Scale 100'	Cell	0	62	0	
 Graphic Scale 20'	Cell	0	62	0	

### Signals









#### Symbols/Patterns (Cont.)

 Graphic Scale 200'	Cell	0	62	0	
 Graphic Scale 50'	Cell	0	62	0	
 Graphic Scale 1:100	Cell	0	62	0	
 Graphic Scale 1:1000	Cell	0	62	0	
 Graphic Scale 1:200	Cell	0	62	0	
 Graphic Scale 1:500	Cell	0	62	0	
 North Arrow	Cell	2	5	0	
 Symbol, Detector (Hexagon)	Cell	0	48	0	
 Symbol, Pull Box (Rectangle)	Cell	0	48	0	
 Symbol, Signal Head (Triang.)	Cell	0	48	0	
 Symbol, Signal Pole (Circle)	Cell	0	48	0	
 Traffic Signals Legend	Cell		1		
 Turning Diagram	Cell		59		

## MicroStation CADD Standards








### Signing

Signs (Cont.)

Component	Type: cell	Color: 0,2,3	Level: 25	Line Style: 0	Line Weight: 0.2
Dbl Hd Arrow Diagonal					
					
Interstate Shield (Business Loop)					
Interstate Shield					
Interstate Shield Missouri)					
Advance Left Turn Arrow	 <small>M5-1L</small>				
Advance Right Turn Arrow	 <small>M5-1R</small>				
Missouri On The Move	 <small>Progress as Promised</small>				

### Signing

Signs (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Stop	 <small>R1-1b</small>				
Yield	 <small>R1-2</small>				
4-Way Plaque	 <small>R1-3</small>				
3-Way Plaque	 <small>R1-5</small>				
Road Closed	 <small>R11-2</small>				
Road Closed Miles Ahead LTO	 <small>R11-3a</small>				
Road Closed to Thru Traffic	 <small>R11-4</small>				

## MicroStation CADD Standards

### Signing

Signs (Cont.)

Component	Type: cell	Color: 0.3	Level: 25	Line Style: 0	Line Weight: 0.2
To Oncoming Traffic					
Speed Limit XX					
Reduced Speed Ahead					
No Right Turn (Symbol)					
No Left Turn (Symbol)					
No Turns					

### Signing

Signs (Cont.)







Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
No U-Turn (Symbol)					
Left Lane Must Turn Left					
Right Lane Must Turn Right					
Center Lane Only					
Do Not Pass					
Keep Left					



## MicroStation CADD Standards








### Signing

Signs (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
Keep Right	 R4-17aR				
Pass With Care	 R4-2				
Keep Right (Symbol)	 R4-7				
Keep Right (Hor. Arrow)	 R4-7a				
Keep Left (Hor. Arrow)	 R4-7aL				
Keep Left (Symbol)	 R4-8				

### Signing

Signs (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 0.2
Do Not Enter	 R5-1				
Wrong Way	 R5-1a				
One Way in Arrow (Left)	 R6-1L				
One Way in Arrow (Right)	 R6-1R				
One Way (Left Arrow)	 R6-2L				
One Way (Right Arrow)	 R6-2R				
When Flashing	 S4-4				

## MicroStation CADD Standards

### Signing

Signs (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
School Crossing					
Shield-MD Highway					
Straight Ahead Arrow					
U.S. Route Marker					
Railroad Crossing					

### Signing

Symbols & Patterns

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
 Hatch Area Pattern	Area Pattern	0	12	0	2
 Cross Hatch Area Pattern	Area Pattern	0	12	0	2
 Concrete Areafill	Area Pattern	0	12	0	2

### Signing

Symbols & Patterns (Cont.)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
 Sign Symbol	Linear	0	25	0	0
 Delineator - White	Linear	0	25	0	2
 Delineator - Yellow	Linear	20	25	0	2
 Attenuator	Linear	0	48	0	2

### Signing Section

Lines (Misc)

Component	Type: cell	Color: 0	Level: 25	Line Style: 0	Line Weight: 2
 Entrance Line	Linear	11	17	0	5
 Grid Primary Lines	Linear	4	58	0	4
 Grid Secondary Lines	Linear	7	58	0	1
 Road Section	Linear	1	22	0	5

### Signing Section







Signs

 Existing Sign Board	Linear	1	25	Dash 2	2
 Footing	Linear	0	25	0	4
 Post	Linear	8	25	0	4
 Post Behind Sign	Linear	150	25	Dash 2	2
 Sign Board	Linear	0	25	0	4

## MicroStation CADD Standards

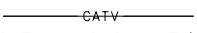
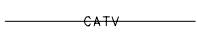
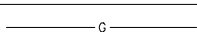
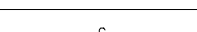
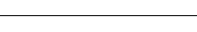
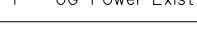
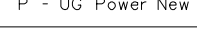

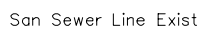
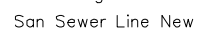
### Signing Section

#### Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Concrete Areafill	Area Pattern	1	12	0	2
 Earth Areafill	Area Pattern	8	12	0	2
 Graphic Scale 10	Cell	1	62	0	0
 Graphic Scale 20	Cell	1	62	0	0
 Graphic Scale 5	Cell	1	62	0	0
 Rock Areafill	Area Pattern	1	12	0	2

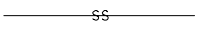
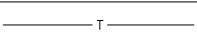
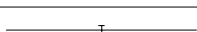
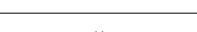
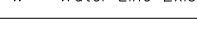
### Signing Section

#### Utilities

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 CATV - UG Cable Exist	Smart Line	15	56	Custom	2
 CATV - UG Cable New	Linear	70	56	Custom	4
 G - UG Gas Exist	Smart Line	116	49	Custom	2
 G - Gas New	Linear	60	49	Custom	2
 P - UG Power Exist	Linear	115	55	Custom	2
 P - UG Power New	Smart Line	51	55	Custom	4
 RR - Railroad	Smart Line	1	53	Custom	2
 San Sewer Line Exist	Smart Line	114	51	Custom	2
 San Sewer Line New	Linear	18	51	Custom	4
 SS - Storm Sewer Exist	Linear	114	51	Custom	2



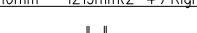
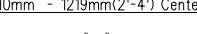
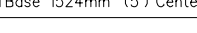
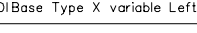
### Signing Section

#### Utilities (Cont.)

 SS - Storm Sewer New	Linear	18	51	Custom	4
 T - UG Telephone Exist	Linear	15	52	Custom	3
 T - UG Telephone New	Smart Line	70	52	Custom	4
 W - Water Line Exist	Smart Line	12	50	Custom	2
 W - Water Line New	Linear	13	50	Custom	4



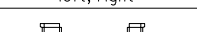
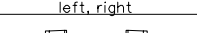
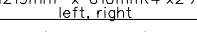
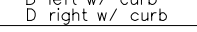
### X-Section/Culverts

#### Drop Inlet Bases

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 DI Base 610mm - 1219mm(2'-4') Left	Cell		43		
 DI Base 610mm - 1219mm(2'-4') Right	Cell		43		
 DI Base 610mm - 1219mm(2'-4') Center	Cell		43		
 DI Base 1524mm (5') Center	Cell		43		
 DI Base Type X variable Left	Cell		43		
 DI Base Type X variable Right	Cell		43		

### X-Section/Culverts















#### Drop Inlet Tops

 A 914mm x 610mm(3'x2') left, right, sideview	Cell		43		
 A 1219mm x 610mm(4'x2') left, right	Cell		43		
 B 914mm x 610mm(3'x2') 1219mm x 610mm(4'x2') left, right	Cell		43		
 C 914mm x 610mm(3'x2') 1219mm x 610mm(4'x2') left, right	Cell		43		
 D left w/ curb D right w/ curb	Cell		43		
 D left w/out curb mh D right w/out curb mh	Cell		43		

## MicroStation CADD Standards





### X-Section/Culverts

Drop Inlet Tops (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 E variable front view  E variable side view	Cell		43		
 S-1 1524mm x 610mm(5'x2') side view  S-1 1524mm x 914mm(5'x3') side view S-1 variable side view	Cell		43		
 S-2 1524mm x 610mm(5'x2') left, right	Cell		43		
 S-2 variable left, right, sideview	Cell		43		
 S-3 914mm x 610mm(3'x2') side view	Cell		43		
 S-3 1524mm x 914mm(5'x3') left, right, sideview	Cell		43		
 S-3 variable for E & EE mod.	Cell		43		
 S-3 variable side view S-3 variable side view	Cell		43		
 T 762mm x 914mm(2.5'x3') left, right	Cell		43		
 T 762mm x 914mm(2.5'x3') left, right w/ manhole	Cell		43		
 T variable	Cell		43		
 X variable left, right	Cell		43		





### X-Section/Culverts

Flared End Sections (Concrete)

 305mm - 1676mm (12'-66'') Inlet Left	Cell		43		
 305mm - 1676mm (12'-66'') Inlet Right	Cell		43		
 305mm - 1676mm (12'-66'') Outlet Left	Cell		43		
 305mm - 1676mm (12'-66'') Outlet Right	Cell		43		



### X-Section/Culverts

Flared End Sections (Concrete) (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Headwall Exist	Linear	31	43	Dash 2	2
 Headwall New	Linear	31	43	0	2
 Metal Flared End Section Exist	Linear	31	43	Dash 2	2
 Metal Flared End Section New	Linear	31	43	0	2







### X-Section/Culverts

Flared End Sections (Metal)

 305mm - 2133 (12'-84'') F.E.S. Left	Cell		43		
 305mm - 2133 (12'-84'') F.E.S. Right	Cell		43		

### X-Section/Culverts



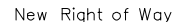
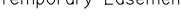
Lines (Ground, Flow, Entrance)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Centerline of Road	Linear	20	21	4	4
 Existing Ground Line	Linear	4	21	Dash 3	4
 Finished Ground Line	Linear	1	22	0	5
 Subgrade Line	Linear	0	22	0	2
 Entrance Line	Linear	11	17	0	5
 Flowline of Pipe	Linear	31	43	0	1

## MicroStation CADD Standards





### X-Section/Culverts

Lines (Right of Way)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Permanent Easement	Linear	2	56	Dash 6	5
 Existing Right of Way	Linear	6	56	Dash 4	5
 New Right of Way	Linear	2	56	0	5
 Temporary Easement	Linear	6	56	Dash 3	5

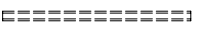
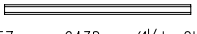
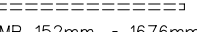
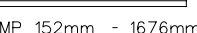
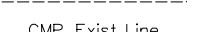

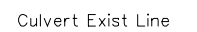

### X-Section/Culverts

Manholes - Precast

 Manhole Top Type 4 variable	Cell	43			
 Manhole Base Type 4 variable	Cell	43			
 Manhole Top 1829mm(6')	Cell	43			
 Manhole Base 1829mm(6')	Cell	43			

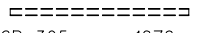
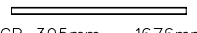
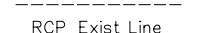

### X-Section/Culverts

Pipes/Culverts

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 457mm - 2438mm (1 1/2' - 8') Box Culvert Exist	Multi-line	31	43	Custom	2
 457mm - 2438mm (1 1/2' - 8') Box Culvert New	Multi-line	31	43	Custom	4
 CMP 152mm - 1676mm 6" - 66" Exist	Multi-line	31	43	Custom	2
 CMP 152mm - 1676mm 6" - 66" New	Multi-line	31	43	Custom	4
 CMP Exist Line	Linear	31	43	Custom	2
 CMP New Line	Linear	31	43	0	4
 Culvert Exist Line	Linear	31	43	Custom	2
 Culvert New Line	Linear	31	43	0	4



### X-Section/Culverts

Pipes/Culverts (Cont.)

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 RCP 305mm - 1676mm 12" - 66" Exist	Multi-line	31	43	Custom	2
 RCP 305mm - 1676mm 12" - 66" New	Multi-line	31	43	Custom	4
 RCP Exist Line	Linear	31	43	Custom	2
 RCP New Line	Linear	31	43	0	4

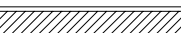
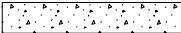
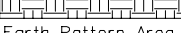




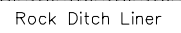
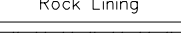

### X-Section/Culverts

Safety

 Guardrail Section	Cell		24		
 Traffic Barrier Section	Cell		35		

### X-Section/Culverts
















Symbols/Patterns

Component	Type:	Color:	Level:	Line Style:	Line Weight:
 Class III Excavation Hatching	Area Pattern	0	12		
 Concrete Pattern Area	Area Pattern	0	12		
 Earth Pattern Area	Area Pattern	8	12		
 Flowline Arrow	Cell		41		
 Graphic Scale 10	Cell		62		
 Graphic Scale 20	Cell		62		
 Graphic Scale 5	Cell		62		
 Rock Ditch Liner	Area Pattern	0	12		
 Rock Lining	Linear	1	43	0	2
 Steel Pattern Area	Area Pattern	0	12		

## MicroStation CADD Standards



### X-Section/Culverts

#### Utilities

Component	Type:	Color:	Level:	Line Style:	Line Weight:
CATV - UG Cable Exist Section 	Linear	15	56	Dash 2	1
CATV - UG Cable New Section 	Linear	70	56	0	4
G - Gas Existing Section 	Linear	116	49	Dash 2	1
G - Gas New Section 	Linear	60	49	0	4
P - Power UG Exist Section 	Linear	115	54	Dash 2	1
P - Power UG New Section 	Linear	51	54	0	4
RR - Raitops 	Linear	1	53	0	1
S - San Sewer Exist Section 	Linear	114	51	Dash 2	1
S - San Sewer New Section 	Linear	18	51	0	4
SS - Storm Sewer Exist Section 	Linear	114	43	Dash 2	1
SS - Storm Sewer New Section 	Linear	18	43	0	4
T - Telephone UG Exist Section 	Linear	15	52	Dash 2	1
T - Telephone UG New Section 	Linear	70	52	0	4
W - Water Exist Section 	Linear	12	50	Dash 2	1
W - Water New Section 	Linear	13	50	0	4

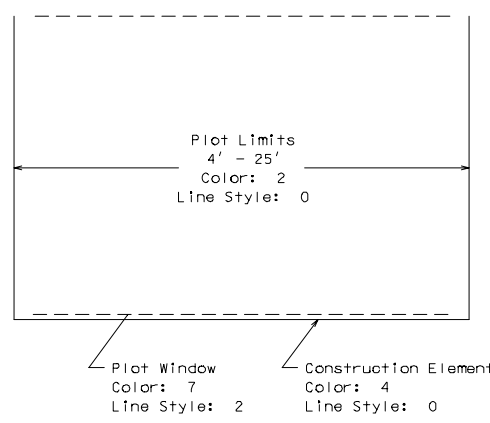
### X-Section/Culverts

#### Walls

Retaining Wall 	Linear	99	23	0	4
Sound Wall 	Linear	99	23	0	4

## MicroStation CADD Standards

### Preliminary Plan

Component		Type:	Color:	Level:	Line Style:	Line Weight:
 <p>Plot Limits 4' - 25' Color: 2 Line Style: 0</p> <p>Plot Window Color: 7 Line Style: 2</p> <p>Construction Element Color: 4 Line Style: 0</p>		CELL	2,4,7	1	0.2	0
Scales						
ENGLISH	METRIC					
1" = 20' - 4' - 25' 1" = 50' - 4' - 25' 1" = 100' - 4' - 25' 1" = 200' - 4' - 25' 1" = 500' - 4' - 25' 1" = 1000' - 4' - 25'	1:500 - 4' - 25' 1:1000 - 4' - 25' 1:1250 - 4' - 25' 1:1500 - 4' - 25' 1:2000 - 4' - 25'					

Note: The Preliminary Plan settings manager is located in the pull down menu.  
(MoDot/Preliminary Plan).